

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) An optical switch, comprising:

a first waveguide;

a second waveguide;

sidewalls that form a trench, including a first sidewall impinging the first waveguide and a second sidewall impinging the second waveguide, of the sidewalls including a mirror wall at a location where the first sidewall impinges the first waveguide; wherein the first waveguide and the second waveguide are positioned so that when the optical switch is in a non-reflection mode, light travels between the first waveguide and the second waveguide

a second waveguide, the second waveguide being positioned so that light from the first waveguide reflected by the mirror wall proceeds into the second waveguide; and,

a heating system that forms a bubble within the trench, wherein volume of the bubble is substantially less than total volume of the trench, so that pressure within the bubble is not substantially increased by pressure exerted by sidewalls of the trench when forming the bubble within the trench, the heating system conducts more heat to the first sidewall than to the second sidewall so that the first sidewall is hotter than the second sidewall.

2. (Currently Amended) An optical switch as in claim 1 wherein when the optical switch is in the non-reflection mode, light travels from the first waveguide to the second waveguide~~the trench is longer than the bubble.~~

3. (Canceled)

4. (Currently Amended) An optical switch as in claim 1 wherein the heating system includes:

a heater; and,

a pillar that extends from the heater up to the first sidewall.

5. (Canceled)

6. (Currently Amended) An optical switch, comprising:

sidewall means for forming a trench, the sidewall means including a first sidewall and a second sidewall;

first waveguide means for directing light towards the trench, the first waveguide means impinging the first sidewall;

second waveguide means for receiving the light after the light is reflected from the trench, the second waveguide means impinging the second sidewall, wherein the first waveguide means and the second waveguide means are positioned so that when the optical switch is in a non-reflection

mode, light travels between the first waveguide means and the second waveguide means; and,

heating means for heating the trench so that a bubble is formed in the trench, the heating means being arranged to disproportionately heat the first sidewall so that when forming the bubble within the trench, heat from the heating system is disproportionately conducted to the first sidewall so that the first sidewall is hotter than the second sidewall wherein volume of the bubble is substantially less than total volume of the trench, so that pressure within the bubble is not substantially increased by pressure exerted by the sidewall means.

7. (Currently Amended) An optical switch as in claim 6 wherein when the optical switch is in the non-reflection mode, light travels from the first waveguide means to the second waveguide meansthe trench is substantially longer than the bubble.

8. (Canceled)

9. (Currently Amended) An optical switch as in claim 6 wherein the heating means includes:

a heater; and,

a pillar that extends from the heater along the trench to the first sidewall.

10. (Canceled)

11. (Currently Amended) A method for operating an optical switch, comprising:

filling a trench with index matching fluid so that light from between a first waveguide passes through the trench to and a second waveguide passes through a trench; and,

forming a bubble within the index matching fluid so that light from the first waveguide is reflected at the trench to a third waveguide; wherein the bubble is formed by heat so that volume of the bubble is substantially less than total volume of the trench, resulting in pressure within the bubble not being substantially increased by pressure exerted by sidewalls of the trench a first sidewall of the trench is heated to be hotter than a second sidewall of the trench, wherein the first sidewall impinges the first waveguide and the second sidewall impinges the second waveguide.

12. (Currently Amended) A method switch as in claim 11 wherein when the trench is filled with index matching fluid, light travels from the first waveguide through the trench to the second waveguide the trench is longer than the bubble.

13. (Canceled)

14. (Currently Amended) A method as in claim 11 wherein forming the bubble includes

using a heater to produce the heat; and,

using a pillar to spread the heat over ~~one side of the trench~~the first sidewall.

15. (Canceled)